

Process for Obtaining HMG-CoA Reductase Inhibitors of High Purity**Abstract**

Lovastatin, pravastatin, simvastatin, mevastatin, atorvastatin, and derivatives and
5 analogs thereof are known as HMG-CoA reductase inhibitors and are used as
antihypercholesterolemic agents. The majority of them are produced by fermentation using
microorganisms of different species identified as species belonging to *Aspergillus*,
Monascus, *Nocardia*, *Amymolopsis*, *Mucor* or *Penicillium* genus, *Streptomyces*,
Actinomadura, *Micromonospora*, some are obtained by treating the fermentation products
10 using the method of chemical synthesis or they are the products of total chemical synthesis.
The purity of the active ingredient is an important factor for manufacturing the safe and
effective pharmaceutical, especially if the pharmaceutical product must be taken on a longer
term basis in the treatment or prevention of high plasma cholesterol. The accumulation of the
impurities from the pharmaceuticals of lower purity may cause many side effects during the
15 medical treatment. The present invention relates to a new industrial process for the isolation
of HMG-CoA reductase inhibitors using so-called displacement chromatography. Use of the
invention enables one to obtain HMG-CoA reductase inhibitors of high purity, with high
yields, lower production costs and suitable ecological balance.